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Fig. 2

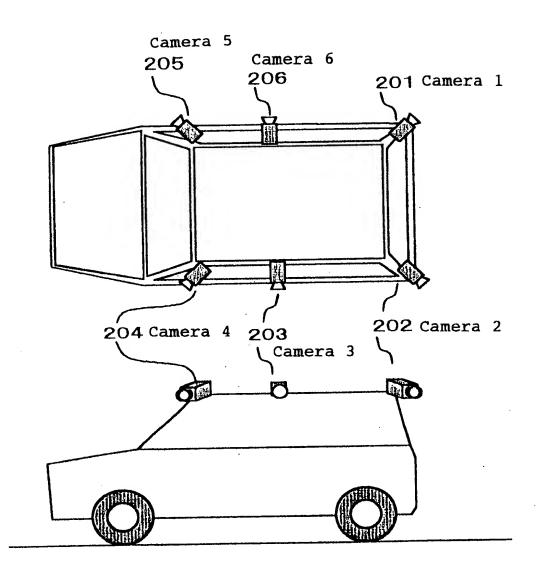


Fig. 3

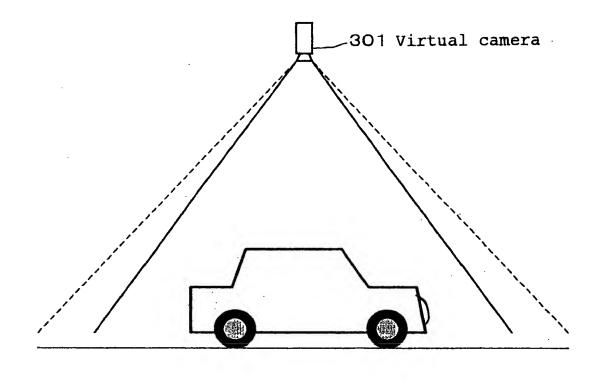
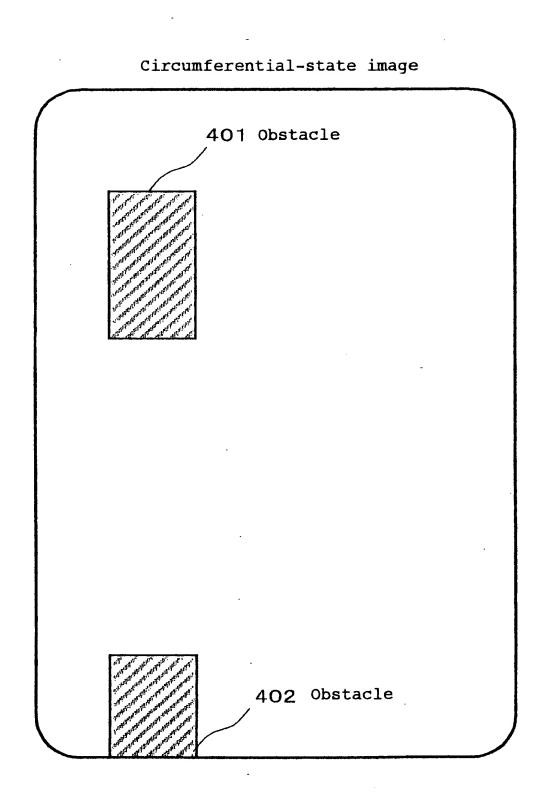


Fig. 4



Number of Steerir revolutions of stee of tire wheel operation (Unit: One turn)(Unit: Start

ig. 5 (a)

	Number of	Steering angle
	revolutions	or steering
	oi tire	MIREL
	(Unit: One turr	turn)(Unit: Degree)
	0.25	0
	0. 25	-45
	0. 25	06-
	0. 2	-135
	0. 1	-180
	0. 2	-135
	0. 25	-90
	0. 25	-45
	8 '0	0
e)	0. 25	45
	0.25	90
	0. 2	135
	0. 1	180
jon	0. 2	135
	0.25	90
	0. 25	45
	0. 25	30
	0. 25	15
	0.5	ល
	0. 5	0

501 Operation start position	503 Tire trace	n end positi
		502 Operation

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9
50
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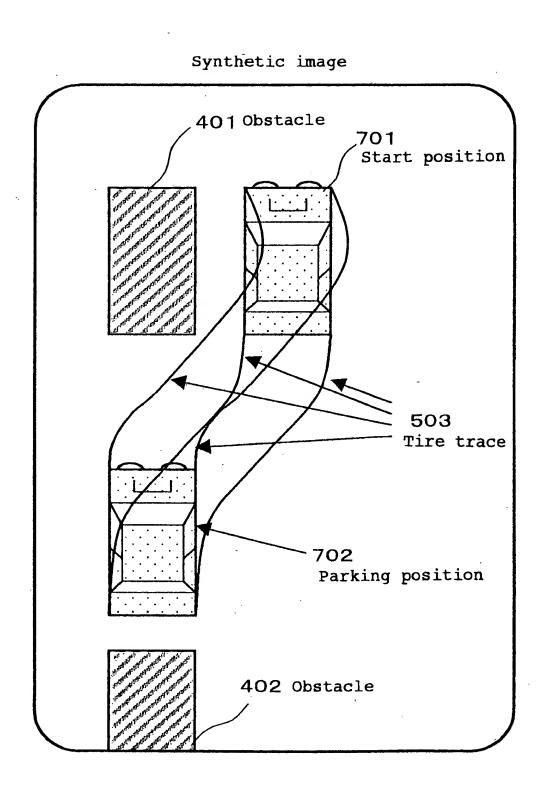
Fig. 6 (a)

Number of	Steering angle
revolutions	
of tire	wheel
(Unit: One turn)	turn)(Unit: Degree)
0. 2	0
0. 25	45
0. 25	06
0. 2	135
0. 1	180
0. 2	135
0.25	90
0. 25	45
0. 25	30
0.25	15
0.5	5
0.75	0

603
Tire trace
Tire trace

602 Operation end position

Fig. 7



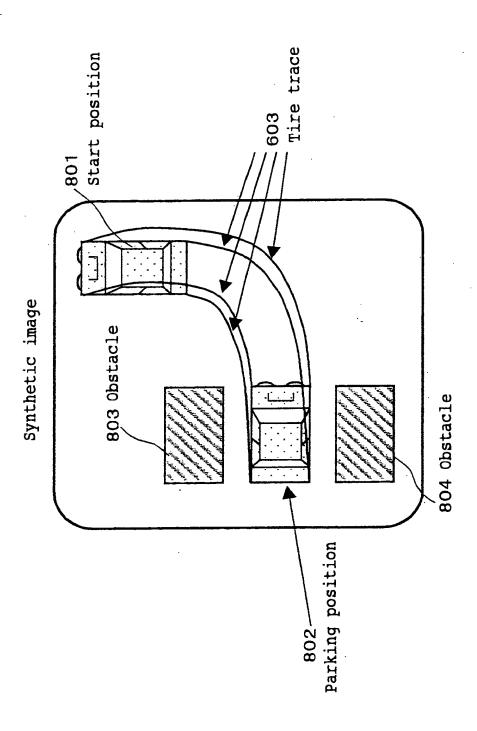
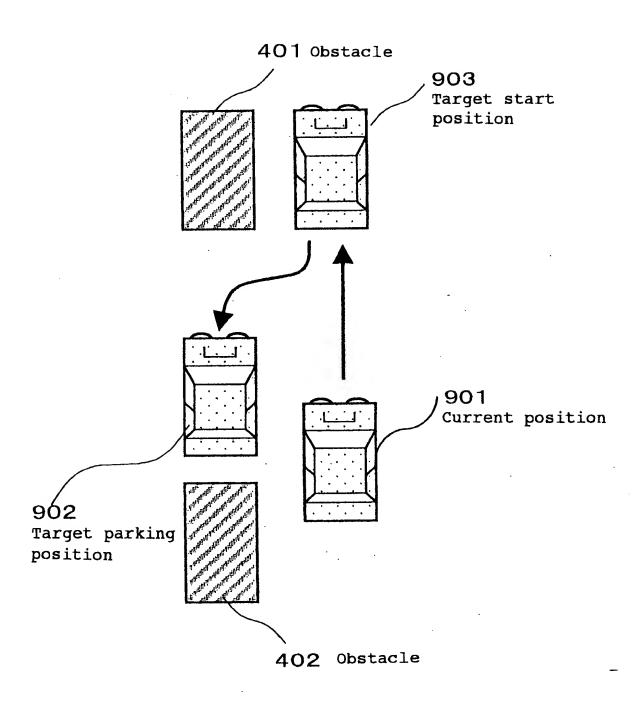


Fig. 8

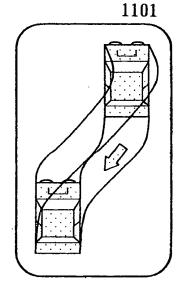
Fig. 9



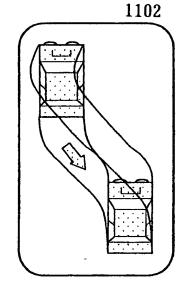
901 Synthetic image 3 1001 Fig. 10 (c) 401 901 Synthetic image 2 1001 Fig. 10 (b) 401 901 Synthetic image 1 Fig. 10 (a)

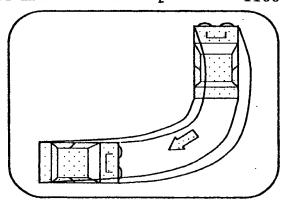
Fig. 11

Assumed-movement pattern



Assumed-movement pattern





Assumed-movement pattern 1103 Assumed-movement pattern 1104

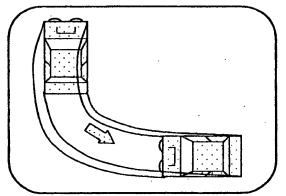
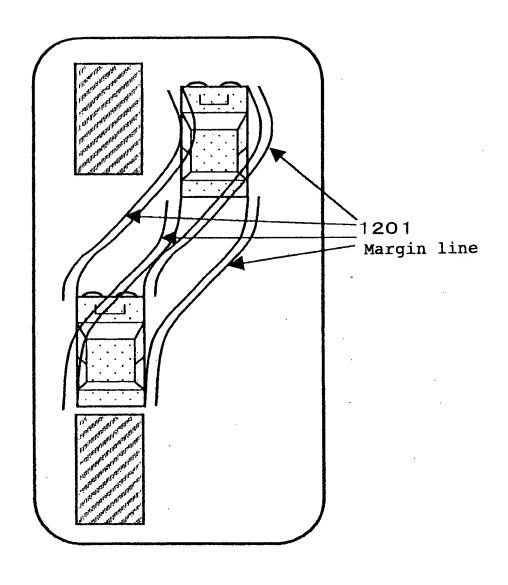


Fig. 12



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13/44

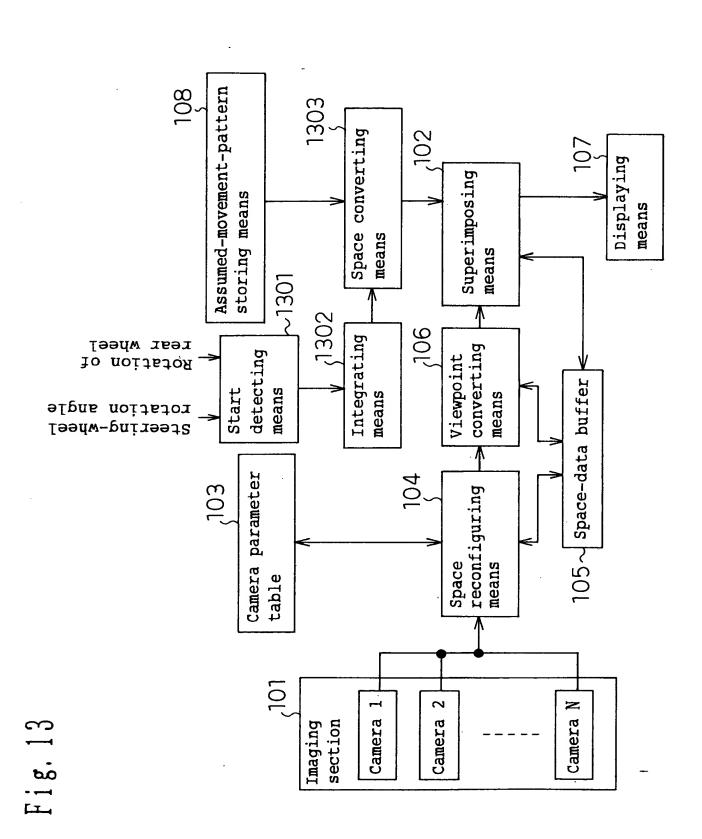


Fig. 14 (a)

Parking-operation start position 1401

1402
Current vehicle

position

Fig. 14 (b)

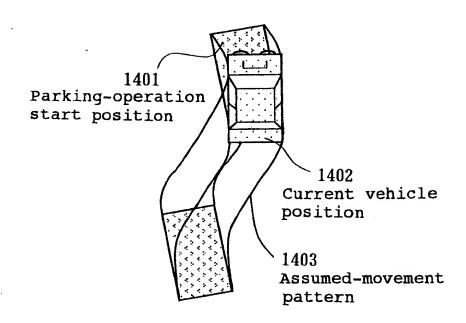
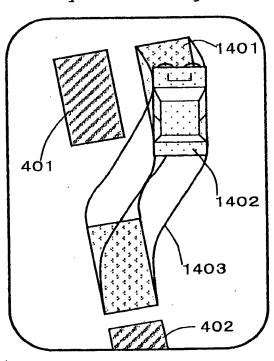
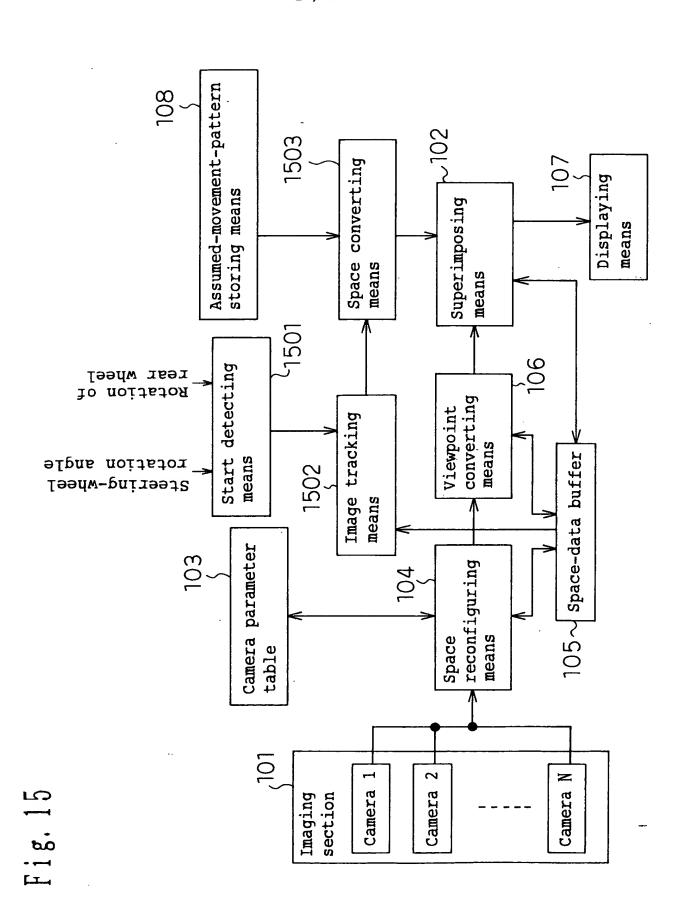


Fig. 14 (c)

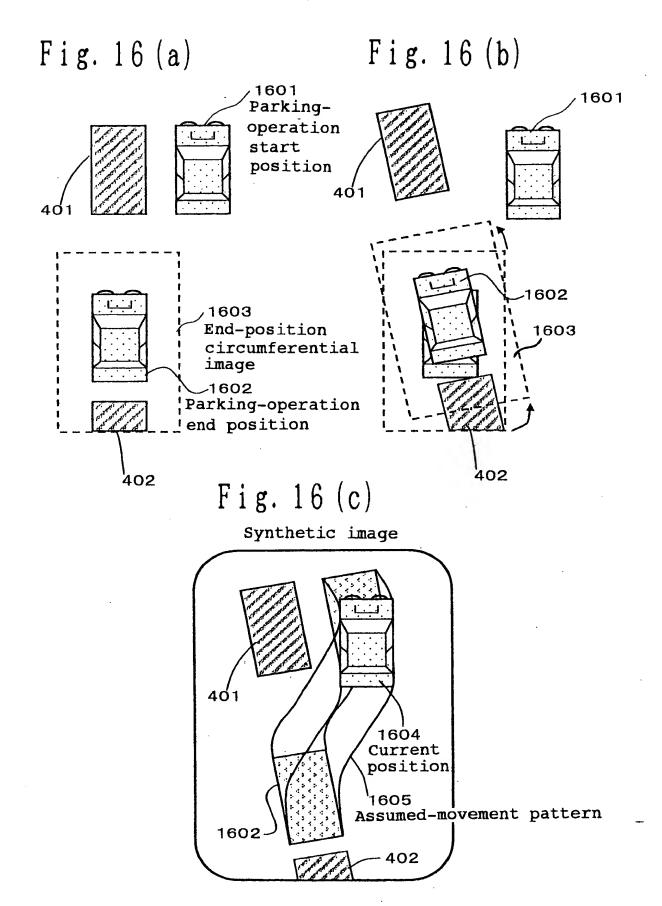
Synthetic image

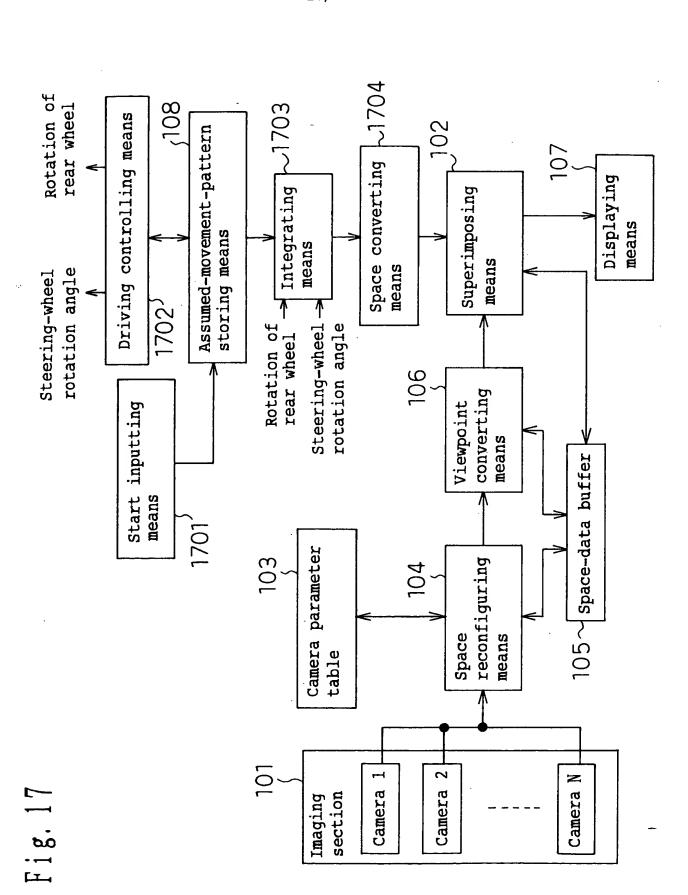


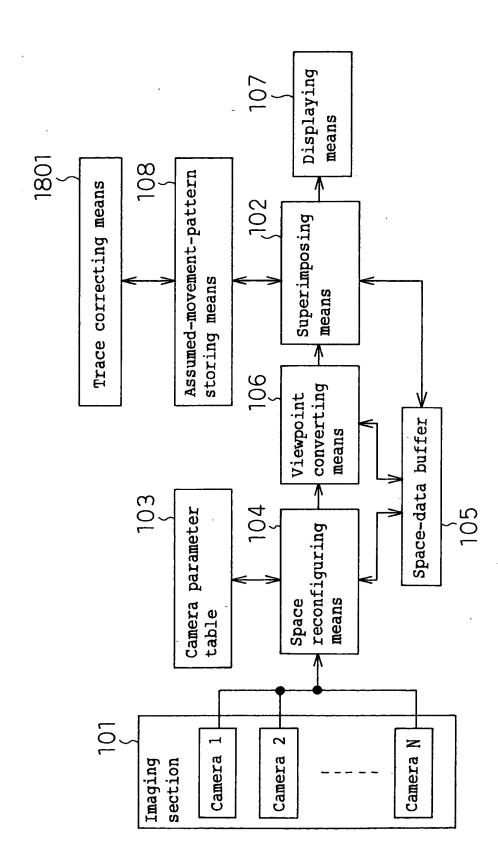
15/44



16/44

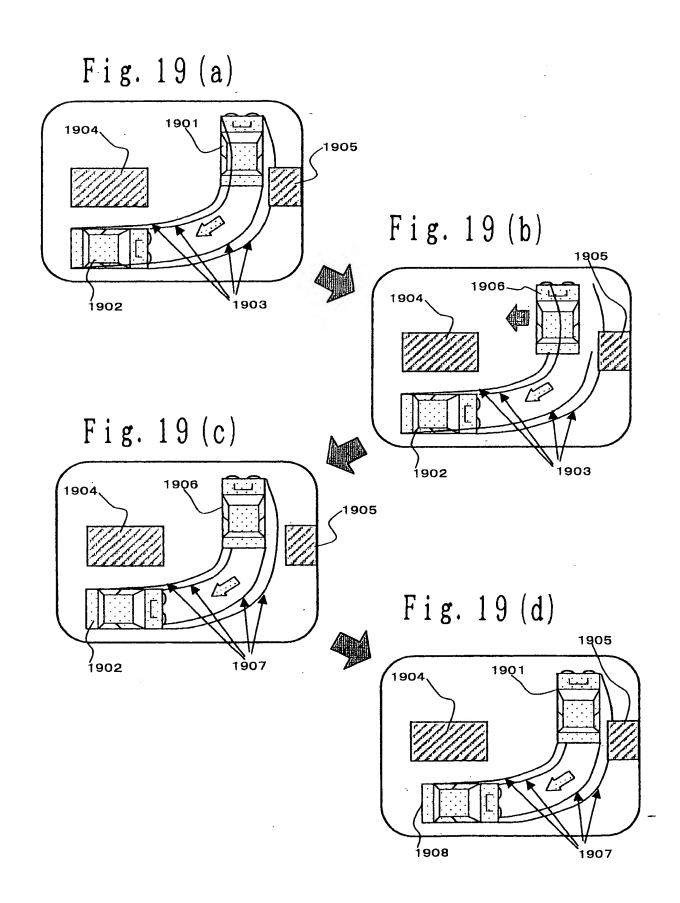






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19/44



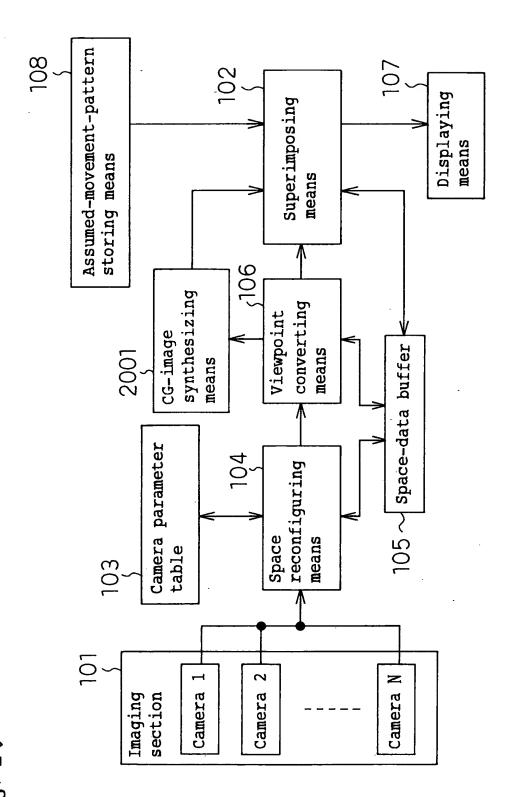


Fig. 20

21/44

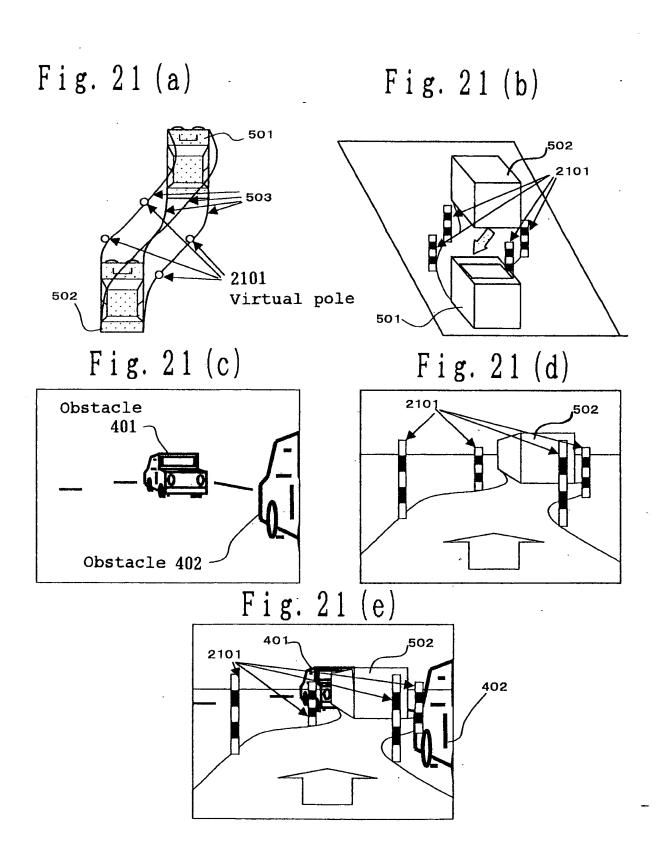
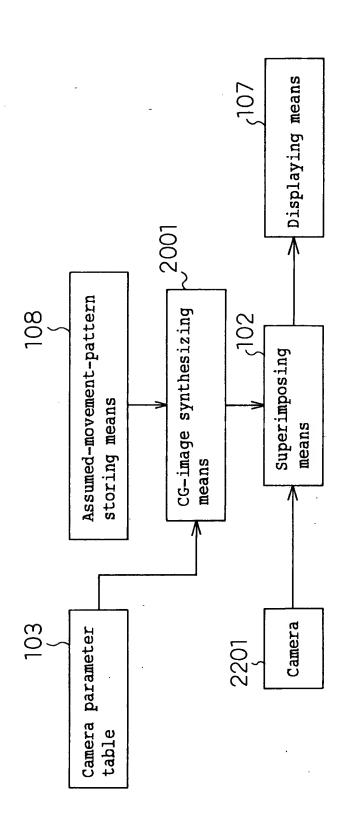
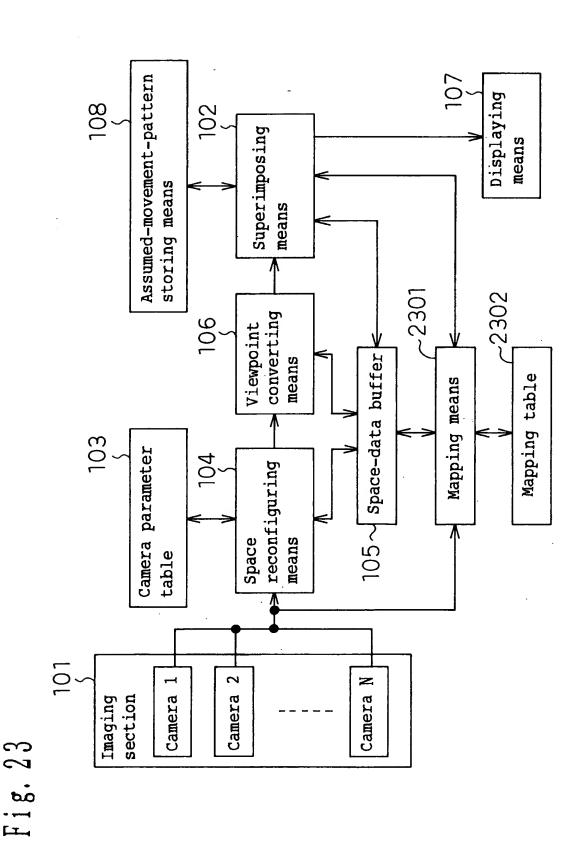


Fig. 22







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(1, 10, 10)	(1, 12, 12)	•	(3, 50, 80)
(1, 11, 11)	(1, 12, 13)	•	(3, 49, 82)
(1, 12, 12)	(1, 12, 14)	•	(3, 48, 84)
•			•
•	•		•
•	•		
3			
	•		
•	•		5
(2, 0, 100)	(2, 2, 102)		(3, 0, 192)

Fig.

25/44

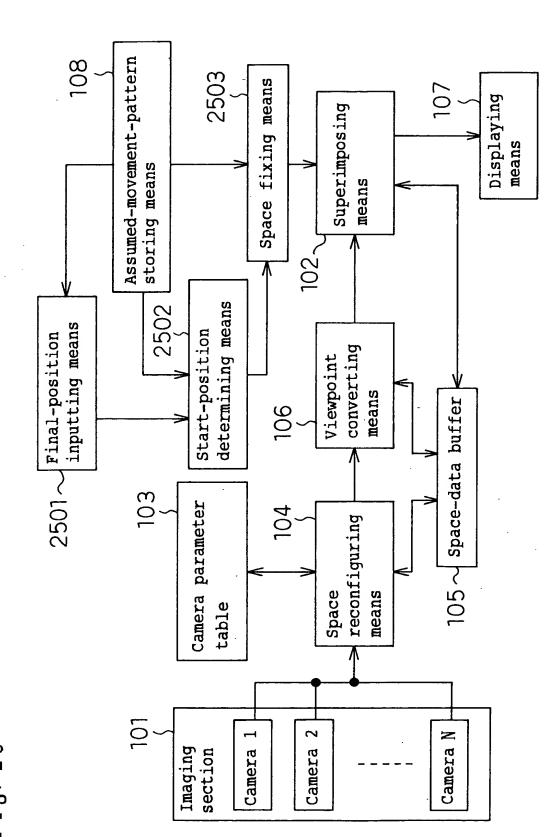
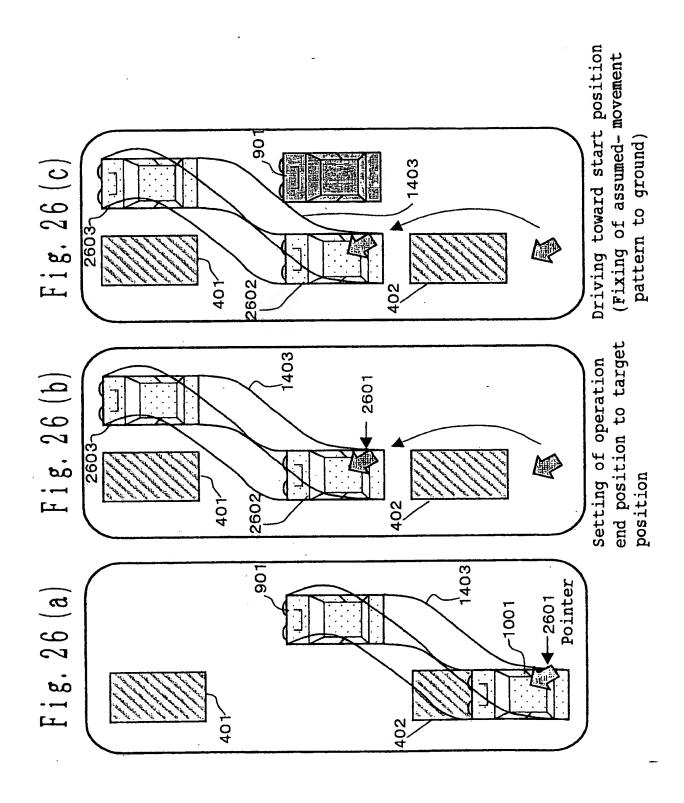
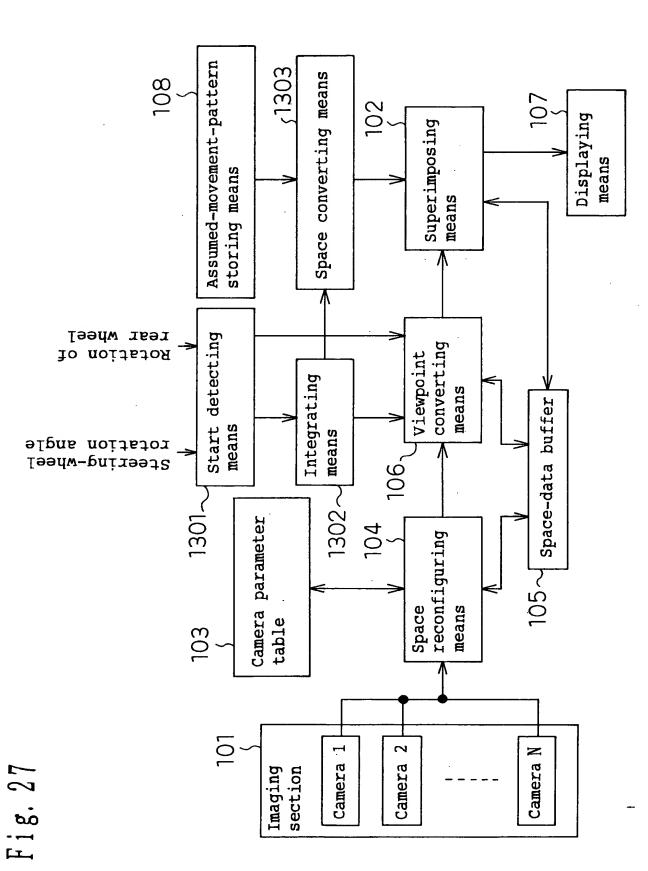
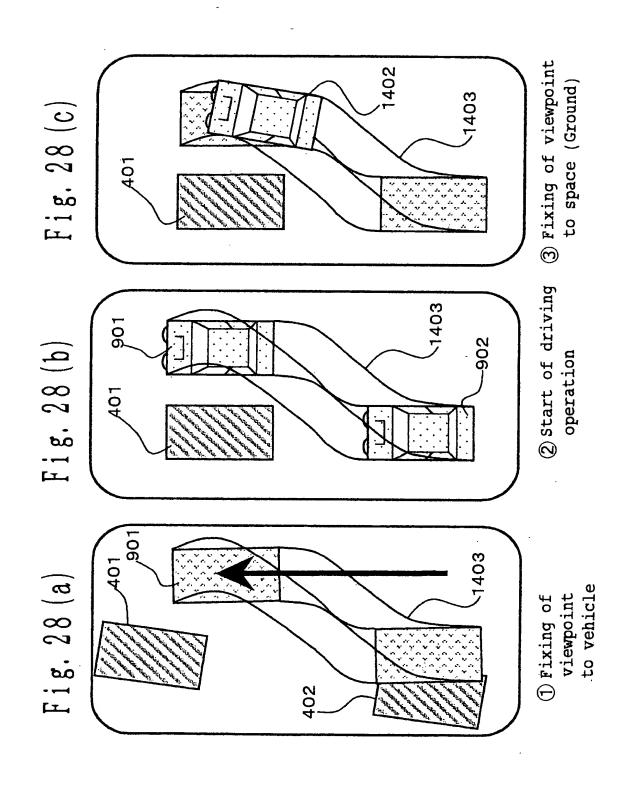


Fig. 25







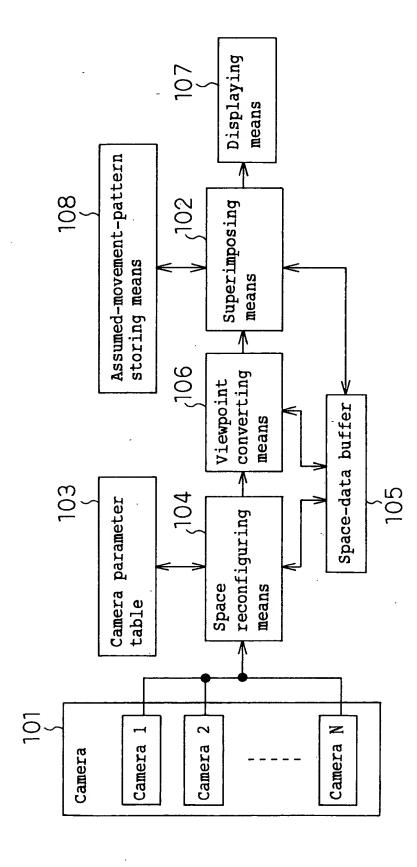


Fig. 29

Fig. 30 (a)

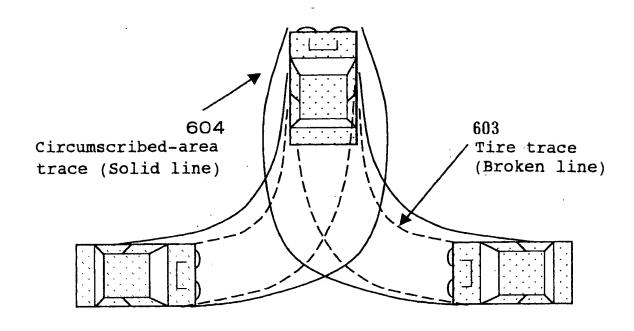
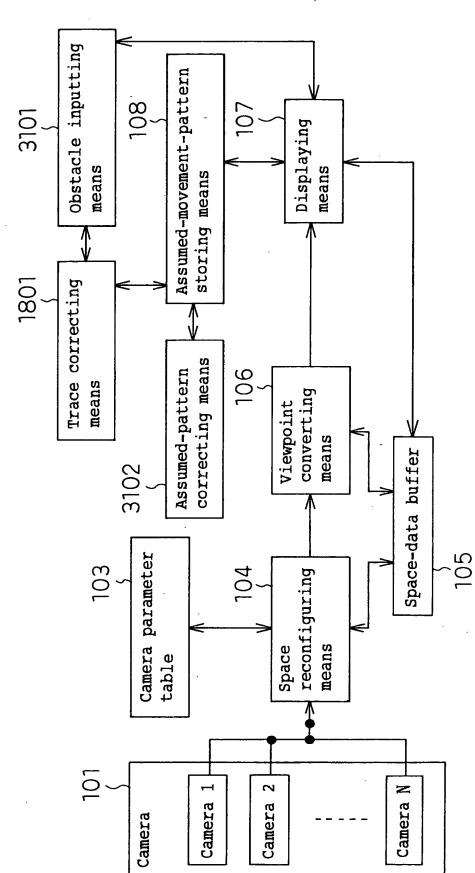


Fig. 30 (b)

Tire	Hand	Hand
0.2	180	-180
0.4	180	-180
0.6	180	-180
0.8	180	-180
1	180	-180
1.2	180	-180
1.4	180	-180
1.6	180	-180
1.8	180	-180
2	180	-180

31/44



F1.8

Fig. 32 (a)

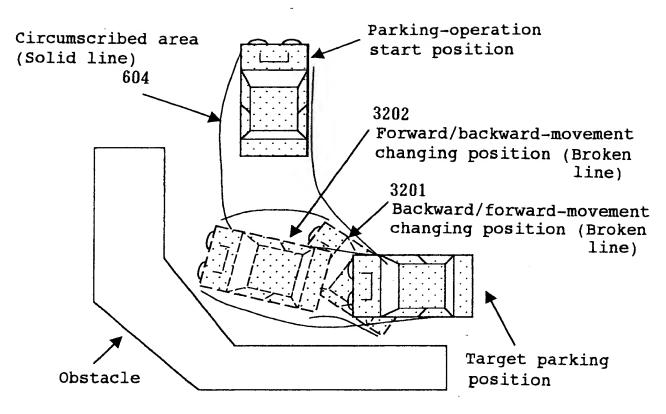


Fig. 32 (b)

Tire	Hand
0.2	- 180
0.4	180
0.6	180
0.8	180
0.8	-180
0.6	-180
0.6	180
0.8	180
1	90
1.2	30
1.4	0

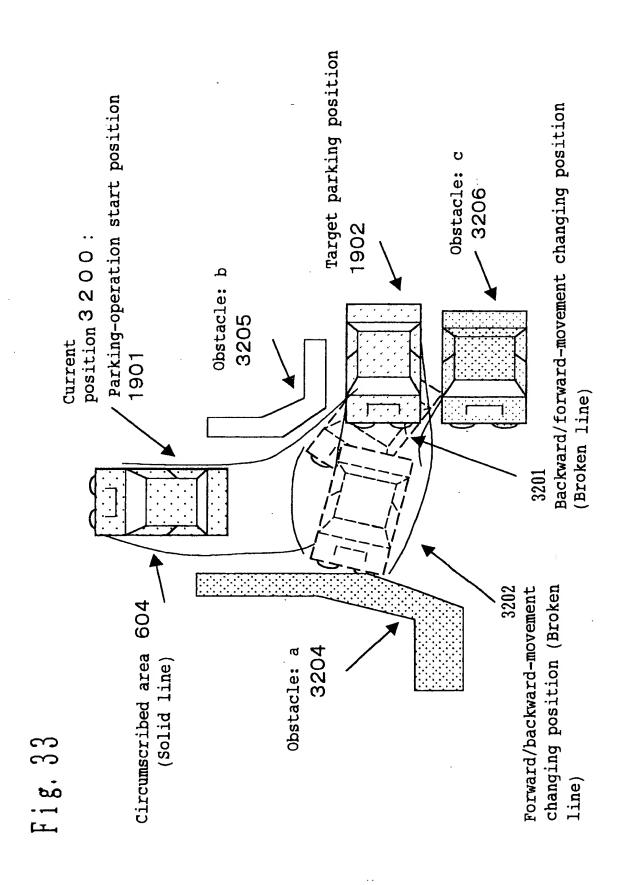
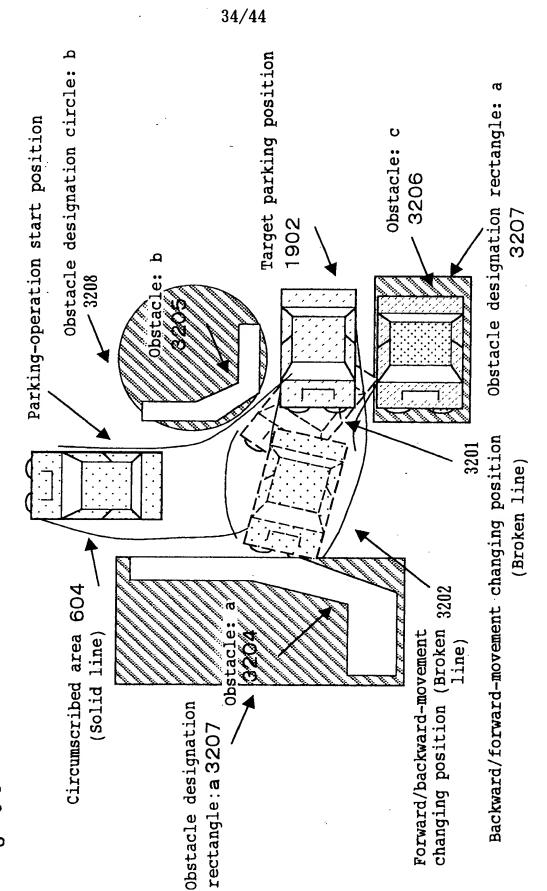


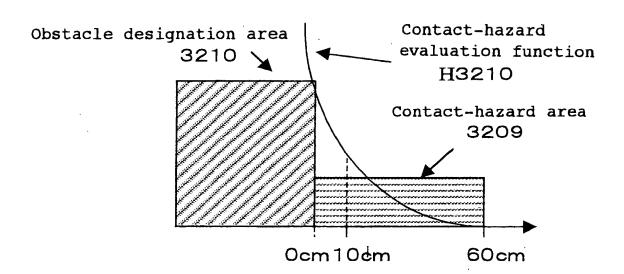
Fig. 34



Obstacle designation circle: b Contact-hazard area Target parking position Parking-operation start position 3209 3208 Obstacle designation rectangle: a 3207 Circumscribed area 604 (Solid line) Contact-hazard area 3209Obstacle designation rectangle: a 3207

Fig. 35

Fig. 36



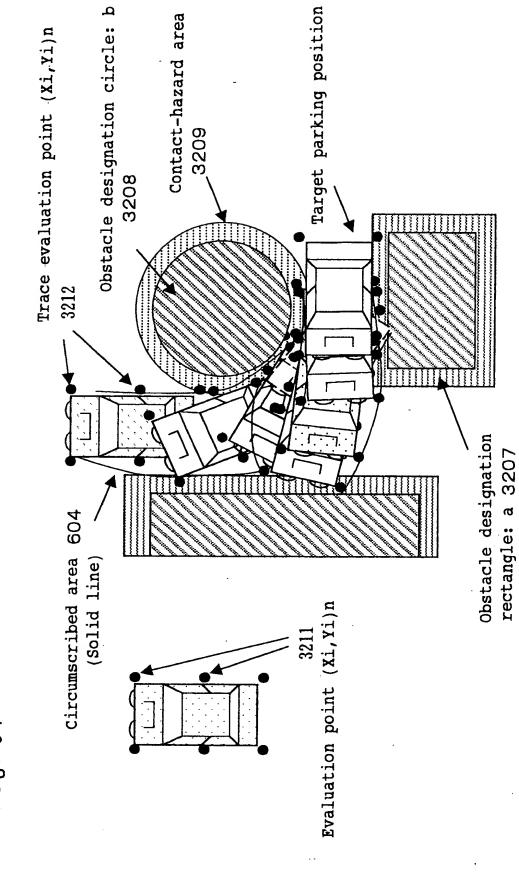


Fig. 37

Fig. 38

$$H'' = \sum n \sum iH(Xi, Yi)n$$

$$= \sum n \sum iH(fx(tm, km), fy(tm, km))n$$

39/44

Fig. 39

Tire	Hand
0.2	180
0.4	180
0.6	180
0.8	180
0.8	-180
0.6	-180
0.6	180
0.8	180
1	90
1.2	30
1.4	. 0



Tire	Hand
0.2	30
0.4	120
0.7	180
0.9	180
0.9	-180
0.7	-180
0.7	180
0.9	180
1.1	90
1.2	30
1.4	0



Fig. 40

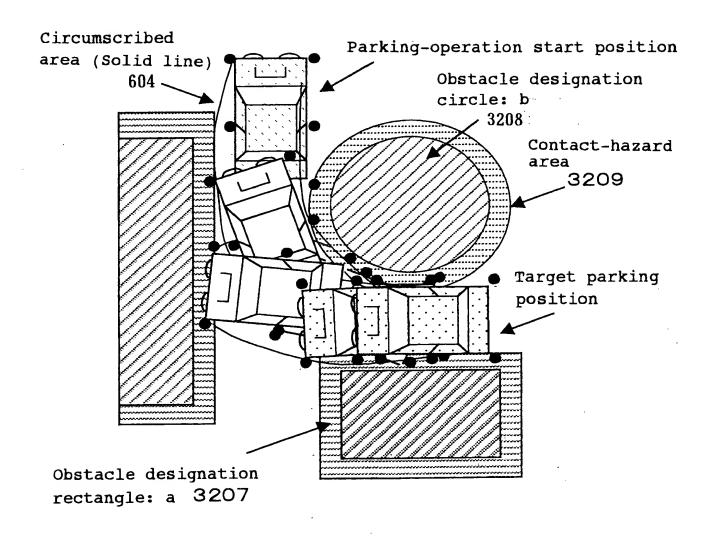
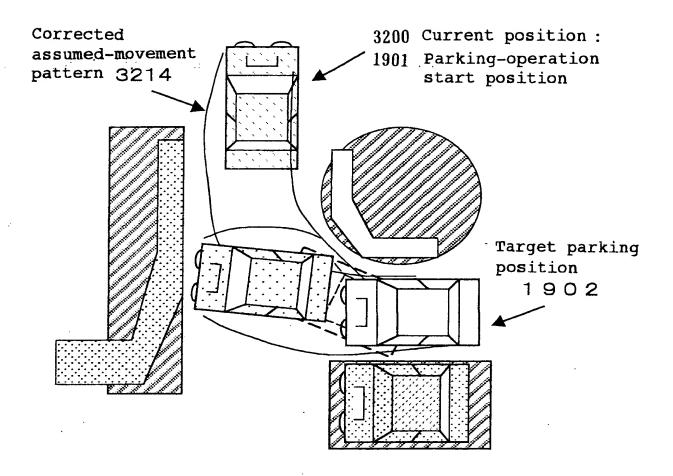
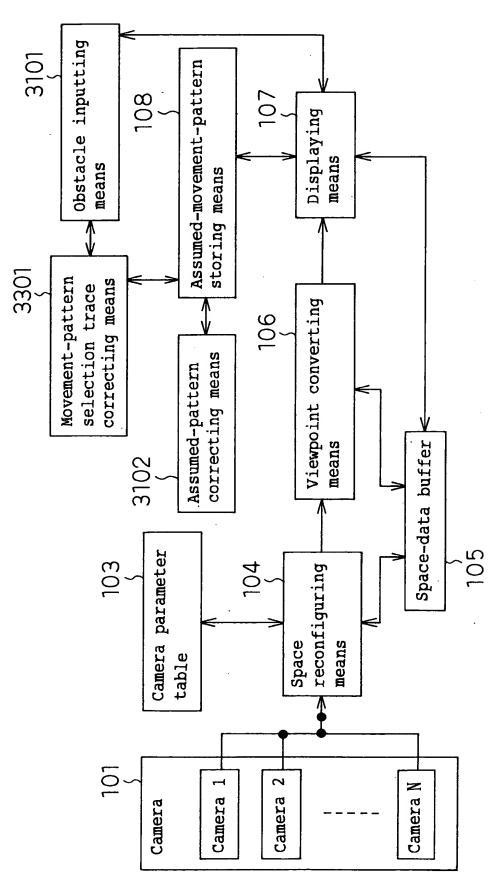


Fig. 41

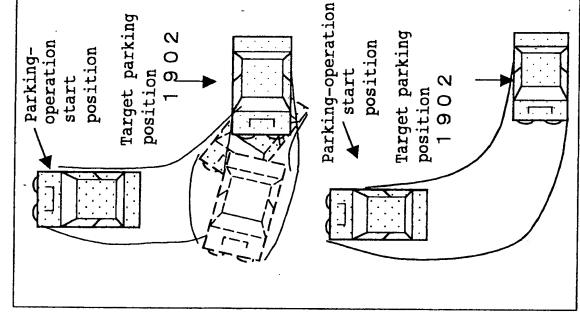


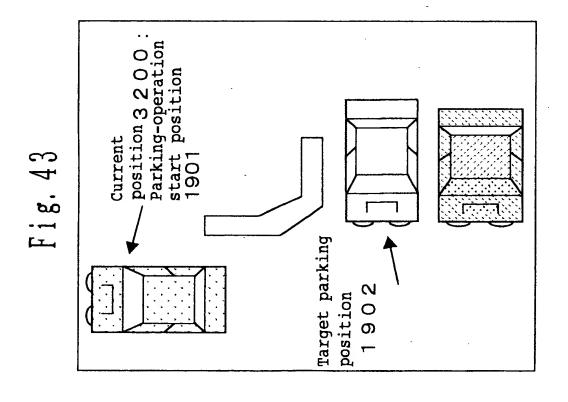




F18.4

Fig. 44





44/44

Fig. 46 designation area: movement pattern 3214 Obstacle 3210 Corrected assumed-Fig. 45 designation area: assumed-movement Obstacle 3210 Corrected pattern